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THE ARTIFICIAL FEEDING OF INFANTS.

NOTES OF A LECTURE AT THE HARVARD MEDICAL SCHOOL.

BY CHARLES E. BUCKINGHAM, M. D.,
Professor of Obstetrics.

THERE are a few more points concerning which it may be as well to speak, before we go on with the care of the mother. I have already objected to the giving of herb-teas to the new-born child. The child is not of necessity sick, and there is no need of its being made so. It is not even hungry. There is no reason for giving sugar and water, or molasses and water, which will grow acid, or milk and water, or even simple water. But look out for the nurse, unless you know her well, or the child will surely get a few spoonfuls of some one of these things, or of some physic. The "red gum" or "red goom," as it is called, haunts the minds of nurses and grandmothers, and if it is not brought out upon the child's skin within a day or two, all the ailments of the next six months will be attributed to its absence. But what is "red gum"? Simply an eruption somewhat papular, which shows that the little one's stomach and bowels have not been in good working order. If it does not appear, we know that the nurse has not overdosed the child. It bears the same relation to the saffron tea which the child has had, that the nettle rash that will afflict some of you will bear to the spoiled lobster or the old mackerel if you eat it. And that is all.

If the child after being dressed is covered with a blanket, and put in bed, it will as a rule sleep the greater part of the time for the succeeding twenty-four hours, without crying. But this is not always the case. Some children cry for food earlier, and some do not show any signs of hunger till the mother's milk comes. It may be that the mother is not going to nurse the child, and perhaps she has no thought of employing a wet nurse; under such circumstances, when and how will you feed it? Now, this is a matter concerning which there are very numerous opinions. It is not my intention to tell you what other people say. I am simply going to give the result of my own experience. You can judge for yourselves, after you begin practice, whether I am right or not. The natural time to eat is when you are hungry. So it is for your child. One of you is hungry only twice in twenty-four hours; another of you, once only in that time; a third can eat and needs food four times in the twenty-four hours, and he is made sick and unfit for his duty if he is cut down to two meals; while he who needs but one will be uncomfortable and ailing if you force him to take two or three meals a day. It is precisely the same with the new-born children: one of them needs food every two hours, and another will go six hours without it. If you oblige the first one to go four hours, he is hungry and cross. If you force the second one to eat every two hours, the discharges become bad-looking, and his mother wonders that soothing syrup and paregoric will not stop his pain. You are simply giving the baby a dyspepsia. Let him alone, and do not try to feed him because the breast is full, or because the hands of the clock point to a particular hour. If he is asleep, let him sleep.

But of what is the food to be prepared? Remember that I am as yet speaking only of the child who is artificially fed. It is to be as nearly an imitation of the natural food as possible; and milk fulfills that condition. The milk of the woman resembles that of the cow in some degree. How does it differ? The woman's milk has in its composition more water, more sugar, more alkali, less butter, less cheese; and that cheese, in consequence of the alkali, is a much less firm cheese. Try the experiment for yourselves, by taking woman's milk and cow's milk in different tubes and adding a trifle of rennet to each. The difference in the curds will surprise you, at the end of twenty-four hours. The proportions of milk and water must vary with the character of the milk. It is not necessary that it shall be all "one cow's milk." If it were, you could not get it in our cities; and if you could, you know nothing of the cow; and if you did, one cow's milk differs from another's as much as the milk of two women differs. A safe way is to begin with a very weak mixture, taking the upper part of the milk, because it contains more cream and less cheese than the lower part. If it is followed by discharges of undigested curd, add from half a grain to a grain of bicarbonate of potash to each fluid ounce of milk. If the discharges still contain curd, water the milk more. Do not be afraid of starving the child by doing this. Milk which does not digest will not nourish; on the contrary, it irritates, and, as is the case with any other undigested food, one can starve with a stomach filled with it. I know that many nurses and many of our own profession will shake their wise heads in doubt upon this point, but you can show the cases which will prove the correctness of the statement, and cases of children fat now, who were emaciating on clear milk, before you made the change. I give you now the safe rule for the proportions of milk and water. There are of course variations to be made according to the peculiarities of different children.

Age of Child.	Milk.	Water.
3 to 10 days.	8 parts.	21 parts.
10 " 30 "	8 "	20 "
1 month.	8 "	18 "
2 months.	8 "	15 "
3 "	8 "	12 "
4 "	8 "	10 "
5 "	8 "	8 "
6 "	8 "	7 "
7 "	8 "	6 "
9 "	16 "	11 "
11 "	8 "	5 "
14 "	16 "	9 "
18 "	18 "	8 "

It would be well to mix at one time the amount required for an entire day. What is left in the bottle after a feeding should be thrown away, and the bottle should be scalded before it is used again.

In this matter of feeding children, I must not forget to call your attention to the time when a tooth presses upon the gum. No matter what the age of the little one may be, that is not the time to add to the strength of the food. On the contrary, as with any other disturbance of the system, there is apt to be fever, and it would be wiser to increase the water, at such time, if the curds begin to show in the discharges. Most surely should this be done, if vomiting follow feeding. Gentlemen will be astonished to find the effect of more water in the milk to be better than paregoric or astringent tinctures, in checking diarrhœa; but it is so. They will also find, after they have deprived the little one of fluid, because it is all thrown up as soon as taken, that if in place of medicine they will let the stomach be filled with cool water, it will come up with but little retching, and will be followed by a long respite from the straining which is sure to follow a teaspoonful or two.

Many will say to you, Use condensed milk. What is condensed milk? Why, milk from which a part of the water has been removed by evaporation and a part of the butter by skimming; or, if solid, there has also been starchy matter added to it. It is poor food for a child. When I say this, I am speaking of all condensed milk; both the imported article, and that which is prepared here. I am aware that fat and strong children can be shown, whose only food has been condensed milk. That proves only that some children can bear it. So some adults can digest articles which will produce pain and diarrhœa and vomiting with the great majority of adults.

The same may be said of arrowroot, and of the various preparations of corn and wheat, which are largely advertised as food for children. They are not the natural food, and those are the peculiar stomachs only, which can manage them.

The second summer is dreaded by most mothers. Why? Because their children, by the second summer, have learned to take other than their natural food; they have lost their taste for the natural food; a great change consequent upon dentition is going on; digestion is disturbed; and the child who has apparently exceeded in healthfulness and strength its companion, who has been allowed milk only, now begins to run the gauntlet of cholera infantum, dysentery, and convulsions. We are called upon to see the enormous percentage of children who die before the first dentition is completed, and to say why the time for cutting the cuspidati is so much worse for them. I can only say, gentlemen, try the experiment of confining a few children to the breast or to the bottle of milk. You will find enough examples of the others without asking for them. Were these children confined to the milk diet alone, the medicine needed by them would not be calomel and chalk, nor opium, nor kino; and the percentage of deaths among them would be smaller. The extra dilution of the milk would as a rule answer the whole purpose better than physic. I never saw a case of cholera infantum in a child who was kept, till the dentition was complete, upon breast milk alone or upon properly diluted cow's milk alone. I never saw such a child starve.

Before closing the remarks upon this subject, I must say a word about the apparatus for feeding with. The spoon is not the best. The drinking cup is not so good as the spoon. The food is swallowed too rapidly from either, and without becoming mixed, as it should be, with saliva. A common four or six ounce vial, which can be easily washed and rinsed, is the best apparatus. For a mouth-piece a bit of linen wound about a quill and put in place of a cork is good. It can be thrown away after being used once. The next best mouth-piece is a black rubber nipple stretched over the mouth of the vial. The white rubber makes some mouths sore. The long rubber tube with glass attachment at the inner end and a nipple at the other is the worst of all. You cannot keep it clean, and it only serves lazy nurses, who wish to feed the child without taking it from bed. The little brush which is sold with it is of very little use, and gets foul without cleaning the tube.

I know there are many who will laugh at the proposition to keep a child upon milk till its first sixteen teeth are through the gum; they will show you children who have fed upon boiled ham and meat pies before they had any teeth, and who have lived nevertheless. And others can show you men who have been shot through the head, and have lived; and a woman who while advanced in pregnancy was compressed between the seats of a railroad car by a locomotive engine, and yet has lived, and given birth to a living child. What does it all prove? Why, simply that mankind is tough — sometimes.

Keep records of your cases; and I believe that when you look back upon them, you will find it to be the fact that, however well those children appear who are fed upon other things than properly diluted milk, before the first sixteen teeth have passed the gum, more of the other class reach the age of five years.

VARIOLA CAUSED BY INFECTED PAPER-RAGS.

BY F. B. A. LEWIS, M. D. (HARV.), OF WATERTOWN, N. Y.

Having read the article in the Journal of April 22, 1875, concerning a recent exanthema in Boston, I thought it possible that a notice of the cases of eruptive disease which have occurred in this city during the past few weeks might not be uninteresting in connection with the above-mentioned article. On the first appearance of the cases to be detailed, they were considered by me to be those of rötheln as described by Dr. Cotting and Dr. Swan, but they terminated in an undoubted form of variola.

Case I. — On February 15th a call was received to attend a young lady, Kate D., who had been employed in one of the paper mills. On examination, she was found to have severe headache, vomiting, livid countenance, quick pulse, white tongue, constipation, inclination to sleep but inability to do so from cephalalgia. She was ordered bromide of potassium, aconite, and a cathartic. The following day the headache was less; the bowels had moved after repeating the cathartic, it having been once rejected. There was a small brown eruption on hands, not unlike that of purpura. The face was still livid and the fever continued in a less degree. The third day an eruption covered the face, arms, and shoulders, indistinctly crescentic in form, eyes slightly diffused, no discharge from nostrils. Cephalalgia and fever continued, but gradually decreased and the eruption fading; she became convalescent upon the fifth day, and rapidly recovered. In this and in all the following cases there appeared, just before and during the eruption upon the skin, a shining eruption upon the velum palati, resembling that of varicella, although very much finer.

Case II. — Addie C., a young lady about eighteen years old, and employed in the same mill as the last patient, was attacked the same day and complained of same symptoms except marked pain in the lower part of the back. The eruption occurred on the second or third day; it was like scarlatina, and was not distinct nor crescentic. The patient had epistaxis and menorrhagia, and died in four days. It was considered a case of scarlatina, and the certificate of death so returned accordingly.

Case III. — Marcia L. was attacked on the same day as the others, with like symptoms, eruption occurring about same time; and after continuing as in Case I., first resembling measles in being crescentic in form, it gradually assumed a vesicular form, and the patient died on the 21st, or on the sixth day. This patient was working in the mill with the others. It was uncertain whether she had been vaccinated, as had been the previous cases and all that follow.

Case IV. — A younger sister of last patient had the same symptoms in milder form, the eruption being slight, disappearing in two or three days, and recovery being perfect. She had been employed in the same mill up to the date of her illness.

CASE V. — Louisa C., a young woman employee, had an eruption less crescentic in form than in the other cases, with two or three large bloody vesicles. There was slight epistaxis and menorrhagia. The patient was attended by the writer on the fifth day of the attack, no physician having been called up to this time. The patient became comatose, and died on the 22d, or the seventh day.

CASE VI. — Mary J. M., a young employee, was attacked two days later than the last, with the same general symptoms. The eruption was very slight on the chest and face. The patient recovered rapidly.

CASE VII. — Mrs. Bella W., a sister of the patient in Case I., was attacked on the 16th; she had not been employed in the mill, but had visited her sister there for about ten minutes, a week or ten days previously. She had active symptoms, with more prominent eruption, followed by menorrhagia and death on the 23d inst., or the seventh day. This patient had been vaccinated four years before, and it had "worked well." Persons exposed to Cases I., III., IV., VI., and VII. were subsequently attacked, although quite a number resided in the same houses and were afterwards quarantined in them from fourteen to twenty-one days.

Three other cases, one female and two males, were attacked, but soon presented the variolous form of eruption; their cases proved fatal.

A case of varioloid followed Cases II. and V.; it ended in recovery. Cases of fairly marked variola followed the foregoing, and were communicated to others residing in the same houses, especially to infants; and in no cases did vaccination appear to prevent. One person well pitted from small-pox was attacked, and died.

Cases of scarlatina in adults have since occurred, and also cases resembling those mentioned in the JOURNAL of April 22d. The last case in the practice of the writer was in the person of a young lady who had not been exposed, so far as she knew, to any eruptive disease; she had slight nausea, a furred tongue, an eruption covering the entire body, resembling scarlatina and measles; there were no catarrhal symptoms except slight watery condition of the eyes. She did not really feel sick, and recovered in four days.

Recurring to the first cases, they are supposed to have been caused by exposure to twenty bales of rags, which were brought from California; ten bales having been received January 28th, and ten February 5th. These rags were sorted by twenty-one girls in one large room, seven of whom were attacked at about the same date. The superintendent of the room stated to the writer that these rags were moist, had a peculiarly disagreeable odor, and many bandages, poultices, and some entire articles of underwear, stained as though from the persons of invalids, were found.

The writer has observed that the vessel bringing these rags to New York city was not quarantined, that the bales were stored with many others, which were forwarded to the mills of another county, and although made into paper no complaint was entered. Some of the employees here who actually handled the rags were not affected, while others working in other material on the opposite side of the room succumbed to the disease; and even two or three who were in other parts of the mill, but who came into the assorting room upon an errand, took the disease. About forty cases have occurred in all, and thirteen or fourteen have died. The mortality was mostly confined to those first attacked.

This attack has appeared to be very irregular or mixed, and not in any way like the ordinary form of variola, as seen by the writer while in charge of the Quarantine Hospital of your city in 1860. Had the cases been attended by a single physician, and the fact that all the patients had been employed in a paper mill been known, possibly the disease might have been suspected earlier. But four days elapsed before notes were compared. However, no apparent harm was done by the delay.

I refrain from further comment upon the cases, as readers interested in the subject will see, without doubt, some instructive points in the time and mode of attack, the severity of some of the cases and the mildness of others, the strange recovery in the one and the malignancy in the other.

It appears also that even these hasty notes cannot fail to call the attention of the younger members of the profession to a possible source of a disease which, especially in the rural districts, brings panic among the people.

RECENT PROGRESS IN DERMATOLOGY.

BY J. C. WHITE, M. D

The Effects of Venous Obstruction in the Skin. — Dr. Auspitz publishes in his *Vierteljahresschrift für Dermatologie und Syphilis*[1] the results of a long series of investigations he has lately made upon the action of venous obstruction upon the skin in health and in its various diseases, as well as upon the skin of the ears of rabbits, which are characterized by his usual indefatigable thoroughness and minute observation. His conclusions are of great interest in relation to cutaneous physiology and pathology, but we have room for only the briefest abstract of them.

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[1] 1 Jahrgang, 2 und 3 Heft.

Obstruction of the circulation in the superficial veins of the arm was produced by applying a ligature as for venesection; and some of the appearances thus caused in the skin, in healthy and diseased states, are well shown in the accompanying colored illustrations.

Diapedesis was thus produced in preëxisting and already developed centres of inflammation more quickly and strongly than in other parts of the skin. The inflammatory redness was much more pronounced about the edges of such portions, in consequence of the obstruction, than in the centre. In the eruptions of urticaria, erythema papulatum, lichen urticatus, eczema, and variola, there was likewise noticed an increase in the escape of serum in the centre, with elevation of its surface and a lighter color, while the borders of the efflorescence were generally darker in color. Suppuration was never excited or increased in consequence of the obstruction during its existence, although the fluid contents of vesicles were increased in quantity.

The Sweat Glands and the Action of their Secretion upon certain Metallic Salts. — Dr. Aubert has published an article[1] upon this subject based upon observations made by studying the impressions obtained by the application of the hand to sheets of paper impregnated with nitrate of silver, protonitrate of mercury, and various other substances. These impressions were of two kinds: dotted ones, produced by the hands after being carefully washed, in which each point corresponds to a sweat gland; and linear ones, produced by the unwashed hand, the lines corresponding to the ridges of the papillæ. By this new method of exploration Dr. Aubert comes to the following conclusions: —

The insensible transpiration is performed exclusively by the sweat glands.

The moisture is due not only to the constant discharge of the perspiration, but also to the presence of the deliquescent alkaline residue left by its evaporation.

The sweat glands, independently of their other functions, should be regarded as a secretory apparatus attached to the organs of touch.

This last view is of significance in connection with certain facts to which he calls attention: the inequality of the number of sweat glands in different localities, and their predominance in the palm of the hand and the sole of the foot; the inequality in their activity also in various parts; the persistence of secretion, and of its escape upon the hand and foot in spite of pressure; the relation of proximity of the sweat glands to the papillæ; finally, the acidity of the sweat at the moment of its secretion, and the alkalinity of its residue.

Psoriasis of the Tongue and Buccal Mucous Membrane.[2] — The following are the conclusions from the observations of Dr. Ch. Mauriac upon this affection: —

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[1] Annales de Dermatologie et de Syphiligraphie, vi., No. 2, from Lyon Médicale.

[2] Annales de Dermatologie et de Syphiligraphie, vi., No. 1.

Two elements are constantly observed in this chronic, inflammatory process: first, a sclerous inflammation of the papillæ and superficial layers; second, an epithelial hyperplasy, which condenses in the form of grayish, opaline patches, and which are cast off in the form of scales, consisting wholly of epithelial cells. The parts affected in order of frequence and gravity are the upper surface and edges of the tongue, the commissures of the lips, the internal surface of the cheeks, the internal surface and borders of the lips, the gums, and the arch of the palate. Several phases in the process are recognized: an erythematous period; a sclero-squamous period; the formation of ulcerations and fissures; slashing of the borders of the tongue, a mammillated condition, formation of islets, furrows, etc., resulting sometimes in cicatrices, sometimes in atrophy of tissue from pressure of the scales. The patches, bands, streaks, and scales have a gray, opaline, nacrous, or white chloride of silver appearance. In the syphilitic form the psoriasis-like element occupies a secondary rank, the principal lesions being the erosions, the ecchymotic, exuberant, horny, and other kinds of mucous patches, and the tubercles, the deep ulcers, and the gummata. The hypertrophy of the papillæ may be sufficient to form papillomata, which may be either benign or malignant, and it is by the transformation of the former into the latter that bucco-lingual psoriasis is converted into epithelioma. This is one of the most important points in its history. Mercury and iodide of potassium, when administered as a test of the nature of the affection, are very dangerous when there is no syphilitic element present, as they may hasten the epitheliomatous transformation and aggravate its malignity.

Considérations sur l'Esthiomène. — Under this title, Dauvergne (père) contributes[1] a long article upon lupus and its alleged connection with syphilis and the so-called dartrous diathesis. According to his views of treatment, suppuration is to be provoked in order that cicatrization may be accomplished by stimulating granulation. To this end he uses styrax topically, fortified sometimes by the addition of tincture of aloes or cantharides, or by some drops of creasote. This ointment, spread upon pledgets of lint, provokes suppuration more or less quickly, checks the formation of the indurated tissues, and induces granulation and, after a long time, cicatrization. The cicatrix is not very firm at first, and requires mild cauterization with nitrate of silver, and washings with alcoholic and aromatic solutions. When cicatrization is complete the cuticle is often disposed to break, and to strengthen it he avoids contact with liquids or fats, which soften it, and powders it with a mixture of silicate of magnesia and tannin, or pumps air over its surface several times a day by bellows. The use of caustics he considers injurious, employing upon the tubercles and indurated patches ointments of mercury or iodine, and bathing them with Lugol's concentrated iodine solution. He has never seen any benefit from the use of internal specific remedies.

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[1] Annales de Dermatologie et de Syphiligraphie, vi., No. 2.

Treatment of Lupus. — Hebra (fils) reports[1] the results of the treatment of the fifty-four cases of lupus vulgaris which were in his father's wards during 1873. Volkmann's new method of scooping was largely used, and with surprising success. The bleeding after the use of the instrument is very slight, and although the surface of the affected part may be covered with blood at first, so that it may be necessary to pause for a moment, the hæmorrhage is soon checked by a little dry lint. The cicatrix is much smoother and more like the skin than that which follows the use of caustics. The pain, too, is much less severe than that produced by cauterization, and instead of lasting for hours after the operation, as with the latter, it ceases as soon as the instrument is laid aside. After the soft masses of lupus new-growth have been removed by the scoop (and the operator soon learns to distinguish between the resistance offered by the healthy and the diseased tissue), cauterization or scarification is often resorted to for the destruction of the minute seams of infiltration which radiate from the centres of growth, and of the enlarged vessels.

The scoop was used with the same favorable results in four cases of lupus erythematodes also. In one of them the patient had been affected for twelve years, and after the disease had been thoroughly scooped away the parts were rapidly restored to a healthy condition. The cicatrix could scarcely be distinguished from the surrounding skin.

The Concurrence of Lupus and Cancer. — Professor Lang, of Innsbruck, reports[2] an interesting case of these two processes occurring simultaneously upon the face of a young man; the lupus, however, according to the general rule in this affection, dating back to childhood, while the carcinomatous growth was of a year's duration only. After death, which took place within two years after the appearance of the malignant process, cancerous masses were found connected with the internal organs also. The local progress of the carcinoma seemed to be greatly facilitated through the loose and softened tissue of the lupus, so that it extended much more rapidly and widely than in ordinary cases. The concurrence of two distinct pathological processes, which are both prominently characterized by disintegration of tissue, tends to bring about a still more rapid and extensive destruction, inasmuch as the low vitality of the cancer cells is still further reduced by the subordinate value of the lupous stroma as a base of nutrition.

The concurrence of cancer and lupus is rare, and is not to be confounded with the development of cancer about cicatrices which mark the seat of lupus long healed, just as in connection with the scars from other destructive processes. The concurrence of epithelioma and lupus, or the transformation of the latter into the former, is much more common.

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[1] Bericht der Klinik und Abtheilung für Hautkranke.

[2] Vierteljahresschrift für Dermatologie und Syphilis, 1 Jahrgang, 2 und 3 Heft.

The Nature of the Giant Cells in Lupus. — The meaning of these so-called giant cells, which are found in lupous, scrofulous, and tuberculous growths, has been variously interpreted by observers, and efforts have been made to prove the relationship of these affections on account of the common presence of these cells. According to the views of Professor Lang[1] these bodies are merely the expression of retrogressive metamorphosis *en masse*, affecting all the tissues. Their presence, therefore, in no way indicates that these affections are alike, but merely that they are capable of the same form of degeneration. In their later stages these bodies may be converted into granular masses, which may undergo absorption, or lead to ulceration. In the former case, inasmuch as the process may affect the papillæ and follicles, the skin will sink in, lose its normal protuberances which are due to these, become smooth and glazed, and in fact assume the appearances of a scar without the occurrence of ulceration.

The Etiology of Leprosy. — Dr. Hauser,[2] assistant physician to the Leper Hospitals at Bergen, contributes a long article, in which a full account of the condition of this disease in Norway at the present time is given, and argues from the data he has collected that leprosy belongs to "the category of specific diseases which are contagious, but, like specific diseases in general, are not transmitted by inheritance."

(*To be concluded.*)

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PROCEEDINGS OF THE NORFOLK DISTRICT MEDICAL SOCIETY.

ARTHUR H. NICHOLS, M. D., SECRETARY.

January 15, 1875. — DR. R. T. EDES in the chair; and afterwards, DR. DAVID S. FOGG.

DR. GEORGE FAULKNER read a paper upon The Pathology and Treatment of Jaundice, the regular subject for discussion.

DR. H. P. BOWDITCH presented some microscopical sections of the liver in which the blood-vessels were injected red and the gall-ducts blue. The specimens showed very clearly the relation between the gall-ducts and the hepatic cells. Dr. Bowditch remarked with regard to the physiological view of the question, that the constriction of the gall-ducts undoubtedly furnished a very common cause of jaundice. And yet the fact that the passage of a gall-stone is not invariably accompanied by jaundice has been regarded as a proof that a simple obstruction of the gall-ducts does not necessarily produce a reabsorption of the bile. A consideration of the anatomical relations of the ducts seems to show, however, that it is not impossible for a gall-stone to find its way from the gall-bladder to the intestine without at any time causing a sufficient obstruction to throw the bile back upon the liver. As long as the stone is passing the cystic duct, the bile has, of course, a perfectly free passage through the hepatic and common ducts into the intestine. When the stone becomes engaged in the common duct, the passage into the intestine is closed, but the bile can now pass through the cystic duct into the gall-bladder. If the passage of the stone through the common duct is not too prolonged, there seems to be no reason why the bile formed at this period should not be accommodated in the gall bladder, provided this receptacle be not already too full.

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[1] Vierteljahresschrift für Dermatologie und Syphilis, 1 Jahrgang, 2 und 3 Heft.

[2] British and Foreign Medico-Chirurgical Review, April, 1875.

If we accept the views of Schiff on the physiology of the biliary section, we are furnished with a possible explanation of those cases of jaundice in which there seems to be no reason for assuming the existence of an obstruction of the gall-ducts. As the result of many experiments on animals, Schiff has reached the conclusion that a portion of the bile poured into the intestine by the liver is absorbed unchanged, and carried by the portal vein to the liver to be there excreted, and again poured into the intestine. The liver has thus a double function, namely, to form bile from the materials contained in the blood, and to excrete the bile brought to it by the portal vein. Under normal circumstances the liver removes the bile so completely from the blood that none of it appears in the general circulation; but if for any reason a greater quantity of bile than usual is absorbed from the intestine, or if the excreting power of the liver is diminished, we should naturally expect that a portion of the bile would find its way through the liver to the hepatic vein, and thus reach the general circulation. A small amount of bile thus finding its way into the blood is regarded by Dr. Brunton as the cause of those symptoms which are commonly classed together under the term "biliousness," and the relief of which by the exhibition of mercury is explained by the fact that this drug acts mainly on the small intestine, and thus removes the bile from the alimentary canal so rapidly that it has no opportunity of being absorbed. The presence of a larger amount of bile would naturally cause all the phenomena of jaundice.

In some recent experiments by Fleische, it has been found that if the lymph is withdrawn from the body of a dog by means of a canula placed in the thoracic duct, there is no accumulation of biliary salts in the blood of the animal as the result of tying the common bile-duct, while the lymph which flows from the canula contains a considerable quantity of these salts. This seems to show that in jaundice, by reason of the obstruction of the bile ducts, the absorption of bile into the blood takes place not directly but through the medium of the lymphatic system.

Dr. Fifield thought it was pretty generally conceded that all cases of jaundice could be referred to one of two classes: (1.) Jaundice arising from mechanical obstruction, causing retention or non-elimination of the bile. (2.) Jaundice not produced by obstruction. Instances of the former class are comparatively limited in number, while the latter of these forms comprehends a group of varied lesions, and opens a wide field of speculation. The old and commonly received theory that jaundice is generally induced by obstruction of the gall-duct, and is therefore to be removed by the administration of certain specific agents, such as mercury, is quite at variance with modern experience. It is no longer a matter of doubt that manifold causes may contribute to produce this phenomenon when no obstruction whatever can be detected. It is a frequent accompaniment of diseases of the liver, pancreas, duodenum, etc., and is particularly observed in cancerous disease of those organs. It is a concomitant of acute yellow atrophy of the liver. The existence of acute jaundice in women in the latter stage of pregnancy, having not unfrequently a fatal termination, is one of those complications the pathology of which is still obscure. There are certainly a great many cases of this class that cannot be referred to the pressure of the gravid uterus upon the gall-ducts or gall-bladder. A careful consideration of the matter had forced upon him the conviction that many affections characterized by jaundice induced symptoms analogous to those in uræmia, and it would seem therefore not impossible that disease of the kidneys might be associated with an accumulation of the bile-pigment within the blood, thereby staining the various tissues of the body. He alluded to the doubtful pathology of icterus neonatorum, and also to the class of cases in which jaundice appears to prevail in epidemic form, and in conclusion related the history of a family wherein icterus had appeared in several children shortly after their birth, under circumstances which led him to infer that this symptom might be the result of congenital syphilis.

Dr. Fogg remarked that as the result of his observations in practice he had been led to believe that, in a great majority of cases of jaundice of all varieties, there exists a suppression or non-elimination of the bile, or, in other words, there is a disproportion in the production of the constituents by the liver. One of the functions of the liver is to remove noxious matters from the blood. Among these substances is the yellow principle upon which the color of the bile depends, and which is probably formed in the blood. As the result of some morbid change, the secretory functions of the liver may be impaired or suspended, by which means the yellow matter is accumulated in the circulation. This accumulation of pigment, if not got rid of in some manner, might tend to derange some of the vital processes. Nature appears to have provided a safeguard from this danger, by rendering almost all the other secretory functions sensible to the stimulus of the yellow matter in excess, and capable under this stimulus of separating it from the blood. Thus the bile pigment is eliminated by the kidneys and skin, and deposited in the various tissues, imparting the characteristic hue to the various substances with which it is brought in contact, while clay-colored fæces indicate its absence from the intestines. He expressed the belief that in a great majority of all cases of jaundice, there is no reason whatever to suspect the existence of any mechanical obstruction, and cited a number of cases occurring in his practice in which post-mortem examinations demonstrated the biliary passages to be perfectly free, and the liver exempt from organic disease. Moreover, in jaundice not connected with inflammation or organic disease of the liver, there is no distention of the gall-bladder or liver, such as would of necessity result from obstruction with a continuance of secretion. He regarded the result of ordinary treatment as furnishing further evidence that these views of the pathology of this process are correct; since the most efficient remedies are those which promote the secretion of bile. In cases, however, where obstruction is actually known to exist, it seemed to him very doubtful whether bile having once been secreted from the liver was capable of being reabsorbed by the blood, it being much more probable that where there is obstruction and consequent retention, the pressure made by the accumulated fluid upon the vessels serves to interfere with the process of secretion, and thus prevents the due elimination of coloring-matter from the blood. Hence these forms of jaundice are to be referred to a deficiency of secretion, rather than to reabsorption. He called attention to the fact that the bile-pigment may be formed from the free coloring-matter of the blood, without the action of the liver, artificial jaundice having been produced in animals by injecting substances that dissolve the blood-corpuscles. Hence, as stated by Niemeyer, some of the formerly enigmatical classes of jaundice are due to the disintegration of the blood-corpuscles, and the transformation of the free coloring-matter circulating in the blood into bile-coloring matter. This explanation of the origin of the bile-pigment will enable us to understand the cause of the excessive production of that substance in jaundice supervening in certain acute and chronic diseases of the liver and other organs, where a rapid disintegration of the blood and tissue takes place, the functional activity of the liver having been impaired by the original disease.

DR. FORSAITH read a paper upon the subject, of which the following is an abstract: —

Whether we consider jaundice as a definite disease, or as only a symptom of certain abnormal causative conditions, we may discuss it under two general divisions, namely: (1.) The hepatogenous jaundice (Niemeyer), or the jaundice from obstruction of most authors, comprising a large majority of all the cases with which we meet, and occurring from some direct or indirect hepatic derangement. (2.) The hæmatogenous form, or jaundice without obstruction, comprising a minority of cases and arising primarily from some derangement of the blood. In considering the first general division, we may say that whatever produces closure of or pressure upon the biliary ducts, to any considerable extent, will necessarily produce jaundice. Among the causes producing pressure we may instance fæcal accumulations in the colon, tumors, aneurisms, plugs of inspissated mucus, congestion of the blood-vessels of the liver, tuberculosis, hyperæmia, degeneration of the lymphatic glands in the fissure of the liver, foreign bodies that have entered the ducts from the duodenum, adhesions between the walls of the ducts, and many other causes. Cirrhosis, cancer, and hydatids sometimes produce pressure upon the ducts, and sometimes do not; so we may, or may not, have jaundice consequent upon those affections. It is said upon good authority that in more than one half the cases of cancer of the liver there is no jaundice, and the same statement is true of suppurative hepatitis.

But among all the causes of jaundice there are two observed much more frequently than all others. The first of these is acute catarrhal inflammation of the mucous membrane lining the bile-ducts; the second is obstruction of the ducts by biliary calculi.

The catarrhal inflammation, when it extends to the liver, may involve only the hepatic and common ducts, or it may extend far up in their course. As a rule, it extends quite a distance towards the lobules of the liver.

The second division of jaundice, the hæmatic, the hæmatogenous, or jaundice without obstruction, occurs either from some poison acting directly upon the blood, or as a consequence of jaundice of the hepatogenous variety.

This kind of jaundice may also be induced artificially in animals by injecting into their blood substances that dissolve its corpuscles. It is also produced by certain influences acting directly on the blood. Of these we may instance pyæmia, puerperal, typhus, relapsing, remittent, intermittent, and yellow fevers, epidemic influences, snake bites, alcohol, ether, chloroform. The pathology of this form of jaundice is simply the pathology of the various conditions producing it.

Treatment. — We may conveniently class our cases in reference to treatment under three heads, according to their pathology: (1.) Those which will inevitably run on to their ultimate fatal termination. As an example of this class we may instance the jaundice caused by acepholocysts, cirrhosis, carcinoma, — in fact, any cause producing permanent occlusion of the biliary ducts. Our treatment, generally, can be only palliative, relieving from pain and sustaining the vital forces. According to Roberts, it has been proposed in some cases of permanent obstruction to make an artificial fistula into the gall bladder, having first excited adhesion with the abdominal walls by means of escharotics. (2.) There is a class of cases which may be denominated doubtful. I mention as instances of this class jaundice occurring in the various forms of fever, after snake bites, in pyæmia, in abscess of the liver, and in certain other states. The treatment of cases of this kind is the same as that of the various diseases on which they depend. (3.) This class comprises those cases in which there is no organic lesion, and where we may reasonably hope for recovery. If we accept those views of pathology to which I have before alluded, and which are now generally entertained, the treatment of most cases of this class will simply resolve itself into the treatment of obstruction of the ducts from two causes, namely, biliary calculi and gastro-duodenitis.

The specific indications are as follows: (1.) To attend carefully to the diet, supporting the patient by nourishing food and suitable tonics, and avoiding fatty substances as well as starch, sugar, and alcohol. (2.) To supply a substitute for retained bile, in artificially prepared ox-gall, in from five to ten grain doses, two or three hours after meals. (3.) To promote renal and cutaneous secretions. (4.) To resort in inflammatory conditions of the liver to leeching, or counter-irritation, or both. (5.) To give an occasional laxative if there is constipation, as mineral spring water; or, if there is impaction of fæces, manipulate with the arm introduced into the rectum. (6.) If the jaundice is caused by impaction of biliary calculi, to relieve the pain by inhalation of sulphuric ether and by the hypodermic injection of morphia. (7.) To avoid calomel and all drastic cathartics. (8.) To bear in mind, as stated by high authority, that catarrhal inflammations are self-limited, unless the stimulus which produces them is kept up.

One practical point in this discussion is this: Jaundice is dependent on two kinds of morbid action in the liver; one kind is susceptible of cure, the other is not. If we are satisfied that the jaundice is dependent on any functional derangement, producing pressure on the bile-ducts, we may with confidence prognosticate recovery. If from the history of the case and an intelligent examination we are convinced that the jaundice arises from organic changes, we may with equal certainty express an unfavorable opinion. The disease varying in the rapidity of its fatal termination according to the character and severity of the condition producing it.

Dr. Edson read a paper entitled Lead Poisoning among Operatives in Lead Factories.

Dr. Arnold made a verbal communication, reporting a case of paralysis in a young girl, supervening upon a simple ulcerated sore throat, the symptoms corresponding in all respects with those which are well known to occur among the sequelæ of diphtheria.

The paralysis appeared first in the muscles of the throat, then in the recti externi of both eyes, and finally in the muscles of the lower extremities; disappearing in the same order in the course of a fortnight.

RIDES FOR CONVALESCENTS.

During the warm season of the last two years the board of government of the Boston Young Men's Christian Union has furnished carriages to the various hospitals of the city, so that many of the patients were enabled to enjoy a ride in the country, and derive the benefit of the fresh air as they could not otherwise have done. This charity has not only been extended to the inmates of hospitals, but has also included many an invalid living in circumstances too limited to allow of such an indulgence.

To enable the Union to meet the expense thus incurred, a public appeal for special donations was made, as of course the furnishing of rides for convalescents does not legitimately belong to the work of the Union. Heretofore a generous response has been always made to the call of the Union for this special donation, and now that the board of government is issuing its third annual appeal, we can but express the hope that a larger sum than ever will be contributed, in order that a still greater number of the convalescents in our hospitals may be the recipients of a charity which is so wisely and judiciously exercised.

PHARYNGOTOMY.

The successful removal of a foreign body impacted in the pharynx, by the operation of pharyngotomy, being the first case of the kind in Ireland, has been recently accomplished by Dr. W. I. Wheeler, who reports the case to the *Medical Press and Circular* of April 14, 1875. The patient, on November

8th, had been sewing a button on his trousers, and having put the needle in his mouth, eye foremost, it slipped down into his throat. He endeavored to withdraw it by the thread, but was unsuccessful. Two days later, on his admission to the City of Dublin Hospital, his face was full and flushed, and there was huskiness of the voice not unlike that of acute laryngitis. Laryngoscopic examination showed the needle, somewhat obliquely situated, the eye end being buried in the left palato-pharyngeus muscle, the point in the left arytenoid cartilage. Various attempts having been made to remove the needle, but without success, the patient meanwhile growing weaker, suffering intense pain, and constantly importuning to have the needle cut out, it was determined on November 23d to operate. The patient having been brought under the influence of chloroform, Dr. Wheeler made an incision on the left side of the neck, commencing from the body of the os hyoides, to the superior margin of the cricoid cartilage. Each layer of fascia was cautiously divided, and the common external and the internal carotid artery came into view, also the superior thyroid artery and the superior laryngeal nerve, with a few descending filaments of the twelfth nerve. The attachment of the omohyoid muscle was next separated, and the vessels retracted and kept to the outside. A staff was then passed into the mouth and pharynx, causing the latter to bulge to the left side, and at this prominent point a small incision was made to allow the tip of the index finger to pass. The staff was now withdrawn and the opening already made enlarged upwards and downwards with the fingers. After considerable search the needle was found and withdrawn. No sutures were put in the gullet, but the edges of the wound were brought towards one another with a few points of carbolic suture. The man was speedily conveyed to bed, a piece of lint soaked in carbolic oil was laid over the wound, and a poultice of bread and milk placed over the abdomen. Nutritive enemata were ordered to be administered during the day, ice to suck, etc., and a sponge soaked in iced milk was occasionally squeezed on his lips. The recovery of the patient was without serious drawback; on the 6th of December the milk ceased to come through the wound, though before this date some fluid escaped through the wound when taken by the mouth. December 19th he was discharged well.

The following practical points in connection with the operation are mentioned by Dr. Wheeler: (1.) To arrest hæmorrhage from the small vessels necessarily severed immediately, so as not to obscure any of the parts to be divided, which should be well examined before being cut. (2.) To have the vessels well retracted. (3.) To have a staff put into the pharynx from the mouth, to make a bulge. (4.) Not to pass a knife into the pharynx to enlarge the opening up and down, lest the filaments of the nerves be wounded. (5.) The patient need not of necessity be fed with a tube. (6.) Should the thyroid gland appear, not to mistake it for the gullet. (7.) To operate on the left side of the neck, being more convenient to the surgeon, unless the foreign body is bulky and bulges on the right.

MEDICAL NOTES.

— In connection with the preparations for the meeting of the Massachusetts Medical Society next week, we have been requested to invite the attention of gentlemen who visit the Massachusetts General Hospital to the new pavilions which have been constructed during the past year. It is believed that they combine the requisites of ventilation, light, and space better perhaps than has yet been anywhere accomplished.

During the last year the trustees have also erected an amphitheatre for autopsies, which is, without doubt, better adapted to its purposes than any now existing. Besides the arrangements for the comfort of the students, the museum curator's room, etc., there is a ventilated sink, and a ventilated table, which are well worthy the examination of those interested in such matters. The latter is a rotating table which combines drainage and ventilation.

These contrivances, combined with the admirable ventilation of the hall itself, are found in practice to render a common autopsy odorless. This result will be specially appreciated by those familiar with the usual accessories of post-mortem examinations.

— Nine well authenticated cases of poisoning by the homœopathic solution of camphor have been published from time to time in the *British Medical Journal.* This solution contains about a grain of camphor in every two drops, and in doses of fifteen drops and upwards it acts as a strong poison. Some doubt having been expressed by a physician whether camphor was really the cause of the symptoms in the cases reported, from the fact that he had taken the drug in three-grain doses with no other than a beneficial effect, the *British Medical Journal* replies: "It is a well-known fact that the action of a poison is, *cæteris paribus*, in direct proportion to its solubility. Camphor being very insoluble in the fluids of the canal when given in the form of a dry solid, is in great part eliminated without being absorbed, and has little medicinal or poisonous effect; but when taken in the form of a spirituous solution it is much more readily absorbed, and in a corresponding degree more active."

— Attention is called in a recent number of the *Medical Times and Gazette*, by A. Clarence Foster, M. R. C. S., to the external use of the tincture of iron in erysipelas and other forms of local inflammation. It is stated that in scrofulous swellings of the neck its discutient properties are far superior to those of iodine, and where a puerperal breast, or inguinal gland in the male, has threatened to end in suppuration, the early use of the tincture, every other day or so, with a camel's-hair brush, has been sufficient to effect resolution. The remedy may be advantageously applied to swollen and painful joints in acute rheumatism, to the inflamed surface surrounding an unhealthy ulcer, or along the course of absorbents when irritated by a recent, ill-conditioned wound, or in cases of ringworm, for which ink as a domestic remedy has long enjoyed a popularity which was not altogether undeserved.

— The *British Medical Journal* mentions a verdict of manslaughter returned against a midwife. The evidence showed that she had attended a large number of confinements, and had conveyed puerperal fever to the patients. On the 18th of December she was cautioned by the coroner to cease from practice, but did not do so. Since then, two inquests have been held on fatal cases she had attended. At the first inquiry the defendant was censured, and was then committed to take her trial on a charge of manslaughter. Four other cases of puerperal fever have proved fatal. The case is one which presents features of obvious importance. The same journal says, "The principle affects medical men not less than midwives. Is it certain that puerperal fever is contagious? Supposing it to be so, is a person who conveys contagion to a patient open to conviction of manslaughter? Such a case raises questions highly important in science and very momentous in practice."

— Dr. Hess in a Swiss journal reports a case of luxation of the right testicle. An artilleryman, thirty-one years of age, was knocked over by the rebound of a cannon and was found lying upon his face unconscious, his sabre between his legs. On his return to consciousness a small tumor was discovered in the upper part of the thigh, and was supposed to be caused by an effusion of blood. Two days later, on a more careful examination, the right testicle was discovered underneath the skin on the inside of the thigh, at a level with the lower border of the scrotum. It could be moved upwards but was very painful. The right side of the scrotum was empty. At the end of a few days the reduction of the displaced organ was effected. The author thinks that the testicle was displaced by being pushed back to the inguinal canal, and in consequence of the resistance offered by the sabre could not return to its place but was pushed under the skin of the thigh.

— Mr. R. E. Dudgeon, in reply to a recent article in the London *Lancet* on Homœopathy, says: "We do not assume the name objected to; it has been bestowed upon us, and most inappropriately, for it refers only to a portion of our practice. The sole difference between you and us is that we are medical men who hold ourselves free to avail ourselves of all the resources of therapeutics, including homœopathy; while you profess yourselves free to avail yourselves of all the resources of therapeutics except homœopathy. Having always felt that the names 'homœopath' and 'allopath' were nicknames, we shall only be too happy to abandon them. Cease to call us homœopaths; acknowledge our right to practice medicine according to our judgment; throw open your hospitals and dispensaries to the competition of all without distinction of medical creed; and you will see a rapid extinction of homœopathic journals, dispensaries, hospitals, societies, and directories." The editor of the *Lancet* in commenting on these remarks says: "It is not a little curious that the death-blow of homœopathy should be dealt by one of its reputed heads in the country. We congratulate Dr. Dudgeon, the English translator of Hahnemann's Organon, on the courage he has displayed, especially at this juncture, in publicly renouncing the name of homœopath, and in acknowledging that he avails himself of all the resources of therapeutics, including homœopathy. What we have all along complained of is that there is a class of medical practitioners who do assume a name that is calculated to mark them from the body of the profession. Let these practitioners erase the name of homœopath from their writings, their hospitals, and their societies; let them undeceive the public by openly declaring, as Dr. Dudgeon has done, that they do not exclusively practice homœopathy, and that they do not even believe in the general applicability of the system; then we also shall cease to make use of the opprobrious epithet."

— The so-called "Philadelphian M. D.". who was lately fined for practicing illegally in Scotland has, on appealing to another court, had the sentence suspended on technical grounds. While we cannot but regret that adventurers of this kind are not suppressed with such promptness as to discourage the traffic in bogus degrees, we regret also to see the tone persistently assumed by our English contemporaries in cases of this character. Such expressions as "and yet because of some alleged want of clearness, not in the facts of the case, but in the mere statement of them, the Scotch judges reverse the sentence of the magistrates and give a sense of triumph to Philadelphian doctors" can only be interpreted as a willful intention on the part of the writer to mislead the English public as to the character of the medical profession of Philadelphia. In view of the oft-repeated explanations in regard to the character of the so-called "Philadelphia University," we are sorry to see any journal continue to confound it with one of the most distinguished schools in this country, the University of Pennsylvania.

LETTER FROM PARIS.

Messrs. Editors, — The schools and hospitals of Paris, like the chestnut-trees in the squares and gardens of the great city, are bursting into full leaf. Clinics and courses on all conceivable subjects connected with medicine and surgery abound. Now the free professor of the École de Pratique displays all his literary ware, bidding for future practice as consultant, or keeping his name well before the public in case of a vacancy in his line at some hospital. Now the professors of botany announce their coming expeditions into the country, where the *élèves*, like a cloud of locusts, devour every green thing, and, I fancy, gossip more about the faces and figures of the country girls, and the last ball at the Bullièr, than of stamens and pistils, corollæ and chalices. At the Charité I have to some extent followed the clinics of Professor Gosselin, who still treads the stage with a firm, assured step. I have been delighted with his acuteness of diagnosis, and the plain, matter-of-fact way in which he delivers his lectures. In figure and face Professor Gosselin reminds one of the Hon. Benjamin Butler, and one comes away from his clinic ready to admit, without reservation, that one has been in the presence of a man of genius; in short, as the so-called representative American would probably class him, "one of the most remarkable men of our country, sir." At one of my first visits with him, I was particularly struck with his diagnosis of a case of gonorrhœal rheumatism, so quickly made and so fully sustained by the history of the case, as drawn out by skillful questioning. At the clinical lecture the professor stated the diagnostic points to have been the severity of the pain, its duration (several weeks), and its localization in one joint, namely, the left knee. Another most interesting case was that of a person who had been attacked on the thirteenth day of a typhoid fever with gangrene of the right leg, in spite of some threatenings of gangrene of the left limb. Professor Gosselin had amputated in the continuity of the right thigh. In his first lecture M. Gosselin said that the amputation had been "*à la sec*," no blood having been given from the arteries, that the case was doing well, and that he hoped that sufficient blood would arrive by anastomosis to nourish the stump. M. Gosselin went on to discuss the causes of this gangrene of limbs, etc., in typhoid, and stated that although some writers had attributed this spontaneous gangrene to emboli wandering from the heart, yet he still held to the theory of Dupuytren, that the cause of the embolus was the inflammation of an artery; thus, first the arteritis, and then the plug. As your correspondent, in a paper on this subject of gangrene in typhoid, read before a certain club, had sustained exactly the reverse of this, you may understand his anxiety for the result. At the next clinic M. Gosselin announced that the patient was dead (the other limb having mortified), and that he would show the specimens. "Eh bien, messieurs, although I stated that the theory of wandering emboli was somewhat absurd and irrational, behold the heart. Not only are the aortic valves covered with colorless clots, but the very muscular parietes are altered, presenting that form of myositis sometimes observed in the calves of the legs and other muscular parts in typhoid. Here is the spleen, showing numerous yellow spots of infarcti. Here the kidney, showing the same thing; and here are the two common iliac arteries choked with a coagulum which extends a little way into the aorta. *Voila tout!*"

In a case of tumor of the breast of an unusual character, seen at the visit of Thursday last, and reviewed by the professor at the clinic, M. Gosselin placed the diagnosis of gummous tumor, and ordered a specific treatment. M. Gosselin stated that, invited to an operation by a *confrère* for a tumor situated in this region, he had instituted a specific treatment with most satisfactory results. I shall watch this case with interest.

At St. Louis, M. Péan is doing a deal of work, and is much followed; in point of fact, there is too large a following, and I attribute to my visit a horrible cold which I am just recovering from. M. Péan's first operation was for the extraction of cataract; he declared that while Graefe's knife was pretty good in the hands of a specialist, yet every practitioner was not possessed of sufficient skill to use it. He therefore had had *confectionéd* by M. Mathieu a knife and an accompaniment that he hoped the whole world could use. It was a triangular knife, very like those used for iridectomy, and a needle channeled like a director. This needle had a stop to prevent its entering too far. The needle is passed through the cornea; the triangular knife is then placed in the groove and pushed along until the corneal section is accomplished. It seemed to me a cumbrous apparatus. I think M. Péan had some fear also, for he spoke of the small eye and the overhanging brow; he dwelt too, with warmth, on the aggravation that the undue elongation of the unhappy man's nose caused him. The victim was, however, made ready, the spring speculum inserted, and the needle passed. Now occurred a series of difficulties. As the aqueous humor escaped the cornea became flaccid; M. Péan remarked that the conjunctiva rolled in folds over it, absolutely like the membrane which some fowls possess. After a long time, during which M. Péan, assisted by his two aids, with forceps, wrestled like Jacob with the angel, excepting that Jacob had no aids, the knife was carried through, and the cataract obtained. What there was of it was placed on a napkin and handed round. Its appearance reminded me of the remark of a London barber to the man who had had his hair cut in the country: "Bit hoff, sir, bit hoff!" for its anterior surface was deeply gouged in two places. Much blood had flowed. A Danish gentleman remarked to me that a knife and fork would have been better.

At La Pitié, M. Verneuil has operated for empyema with the galvano-cautery knife with success. He has also exploited before the Paris Society of Surgery his new plan of leaving forceps on arteries without ligature. This he calls *forcipressure*, and in a long communication (very good, by the way) which runs through two or three numbers of the *Bulletin Chirurgicale*, he cites every authority under the sun (excepting poor old John Bell, who said a great many years ago, speaking of a wounded artery in the operation for stone, "If the artery bleeds, leave the old forceps in the wound"), to prove that no one had distinctly formularized the use of forceps in this matter.

Whilst speaking of M. Péan I should have been reminded of M. Mallassez (as one is always reminded of M. Vulpian by thinking of M. Charcot), to mention the very ingenious instrument contrived by him for counting the globules of blood. This promises to be of value in some diseases; for instance, M. Mallassez has established as a mean that in a state of health man has 4,500,000 red globules to the cubic millimetre. Now in some cases of lead poisoning he has found the number of red globules to descend as low as 2,200,000 to the cubic millimetre, and making an average of eleven cases of lead poisoning he has found the red globules to be one and one half times less numerous than in a state of health. I commend M. Mallassez's instrument to the attention of your readers who use microscopes.

At the Hospital of the Midi your correspondent has been most hospitably entertained by M. Charles Mauriac, who has made this hospital, which he says when he took it was considered worn out by the continual cultivations of Messieurs Ricord and Cullerièr, who had plowed and harrowed it for so many years. M. Mauriac, however, has digged about it, and has made and is making it yield excellent fruit. M. Mauriac is known by his publications on various subjects connected with syphilis, particularly in regard to precocious accidents affecting the osseous system, paraphimosis, etc. In regard to paraphimosis, he has given a very great push to the triumphal car of conservative surgery by showing that it is one of the self-limited affections which, when irreducible, may be safely left to itself, nature making the circumcision. M. Mauriac is now working up the nervous affections in syphilis. I think this week or next he will commence his lectures beneath those *tilleuls*, or linden-trees in the hospital grounds, those *tilleuls* made so famous by Ricord, who instructed the generations beneath them.

At the Lourcine, M. Fournier is making ready for his course of lectures on visceral syphilis. He is quite proud of his hospital, especially of the museum, concerning whose excellence he expatiated until my mouth watered (salivation?). I demanded to be instantly shown this museum, but M. Fournier replied that it was "en voie de démolition" in order to be thoroughly renovated. Thus my hopes were dashed. At my last visit I saw one of those cases of syphilitic coloration so closely simulating the moth, or chloasma of pregnancy, or pityriasis versicolor, and two of those curious cases of cutaneous anæsthesia which M. Fournier has pointed out in his great work on the effect of syphilis, especially in women. He distinguishes this syphilitic anæsthesia from that known as hysterical anæsthesia by these points: first, in the hysterical form, one side of the body, commonly the left, only is affected, whilst in the syphilitic variety both sides are equally invaded; secondly, the palms of the hands and the soles of the feet are exempt. In these two cases I saw M. Fournier push pins deeply into the breasts without causing the least sensation to the patient. The opponents of M. Fournier declare that these cases *are* hysterical; that were his doctrine true they should be met with equally among men as among women.

One of the most interesting hospitals of Paris to visit is that of Neckar. The museum, though small, yet contains many interesting specimens, notably of all sorts of calculi; many of enlargement of the prostate, with deviations of the urethra to the right or left, and enlarged prostates hiding calculi behind them. One specimen I noticed as peculiarly interesting, namely, separation of the whole mucous membrane of the bladder; another was of a double bladder, the left ureter entering into one bladder, the right into another. The two bladders communicated by an opening of the size of a franc. In my next letter I will give you some account of the chloroform and ether war here.

W. C. B. Fifield.

Paris, *April* 19, 1875.

LETTER FROM PHILADELPHIA.

Messrs. Editors, — The venerable Dr. Condie, mentioned in one of my recent letters, is now dead. In the day of his activity he was a man of note. His practice was large, and yet, until old age enfeebled him, he insisted upon attending to his large practice on foot. He entertained a singular contempt for physicians in their vigor who kept carriages, probably taking "no note of time," not even its loss. His work on Diseases of Children was highly valued in its day.

It pains me to learn the death of Hubert von Luschka, Professor of Anatomy in the University of Tübingen, Würtemberg. He was still a comparatively young man, and although he spent his best years in the little town where he died, he was connected with a flourishing university (the same in which Niemeyer held the chair of practice, now occupied by Liebermeister), and did noble work during his professorship. All his published works are on a grand scale. His imperial quartos on the larynx, and on the pharynx, his Brust Organe, and Bauch Organe, are superb evidences of his power and skill as an anatomist and prosector. His work, too, on general anatomy, is one I value highly. Whatever he published was the result of original research. The extremely fine plates in all his books are the work of an artist whom Luschka kept in his employ, and who copied them with fidelity from dissections made by Luschka's own hand. So long ago as 1858, when Bamberger published his work on the heart, Luschka's descriptions of that organ were considered the best, and Bamberger used them largely. Luschka's studies upon the anatomy of the heart were made upon the frozen body. Hence, and because of their exactness, they are invaluable.

I have the pleasant memory of a visit to Luschka in 1872, during a stay of some weeks in Tübingen. I found him in a quiet, sunny room, crowded with books, himself wearing a rough, gray jacket trimmed with green, — the stereotyped shooting-coat of the Germans. I shall not soon forget the cordial, genial warmth of his reception. When I entered he was writing the text of his splendid work upon Die Lage der Bauchorgane, which is uniform in size with Die Lage der Brustorgane, the plates being nearly of life dimensions. He showed me the drawings made by his artist for the forthcoming work. With charming simplicity he spoke of the probable usefulness of the work, and with modest pride alluded to the beauty of the plates in books already published. I saw, however, that he felt his works had not been sufficiently appreciated, for he very gently expressed his disappointment that they were not better known in England and America. To this day I do not understand why his publications have been so little used unless their expensiveness be the reason. I recall, too, that Luschka expressed great mortification concerning the flurry over the Löstorfer corpuscles. Before I left him he invited me to visit the anatomical museum of the university with him on the following morning, at the close of his lecture, which began at six o'clock! It was then that I saw the superb collection of his dissections of the larynx, which I mentioned in a previous letter, and copies of which illustrate his work on that organ. I suppose there could not be more exquisite dissection. The museum was not large but was rich in anatomical specimens and anomalies of much value, of Luschka's own preparation. His work was not complete when he died, for he was one of the patient, persevering, large-minded workers, who are few, but who are ever finding newer and better means of developing and communicating knowledge.

A third death, — that of the famous Philadelphia School of Anatomy, which has been recently buried under the march of progress. The new post-office buildings have devoured the ground upon which the old landmark stood. This comprised a couple of old, dingy buildings at the bottom of a court called Chant Street, out of Tenth, above Chestnut.

During the past nine years, Dr. W. W. Keen has been at the head of the school. He was therefore called upon to prepare its history from beginning to end, and read the same publicly at its dissolution. This he did, and his lecture, which has since been published,[1] is a most valuable contribution to the medical history of America, especially of Philadelphia, for it was in the Philadelphia School of Anatomy that many of the leading medical minds of the past half-century first took wing in the domain of teaching and scientific research in anatomy, physiology, therapeutics, toxicology, etc.

The school has always been a private affair, independent of all other organizations, and yet dependent upon the large colleges for audiences. And such have been the attractions offered, that students, after completing their arduous daily routine, flocked to this school every evening in the week for instruction in such branches as were of special interest to them, especially the study of anatomy. The school has been so fully recognized by the colleges that if their students chose to do their dissecting here, the certificate of the principal to that effect was accepted by the faculties. Many students chose this plan because of greater privacy and quietude.

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[1] *The History of the Philadelphia School of Anatomy.* By Dr. W. W. Keen. Philadelphia: Lippincott & Co. 1875.

The Philadelphia School of Anatomy was opened in 1820, by Dr. O'Brien Lawrence. Several other private anatomical schools werestarted almost contemporaneously, but this was the only one which held its uninterrupted way for fifty-five years. The others had but a brief existence.

Following Lawrence, Dr. John D. Godman took the school and held it until called to Rutgers College in 1826. During his sway he published many valuable anatomical papers and translations. He was succeeded by Dr. James Webster, who resigned his charge upon being appointed to the chair of anatomy in the Geneva Medical College in 1830. In 1831, Dr. Joseph Pancoast reopened the rooms, and during his term of seven years "he laid the foundation for his subsequent brilliant career as anatomist and surgeon." In 1838 he was elected to the chair of anatomy in Jefferson Medical College. Meanwhile, he too published important additions to anatomical literature. He was succeeded in the school by Drs. James McClintock, Justus Dunott, and Joshua M. Allen. Up to 1841, McClintock secured a large class by his excellent demonstrations. He was then called to a Vermont medical school as professor of anatomy, and Dr. Allen was left in sole charge of the school. It was during his régime that a lady dissected with the ordinary medical classes. "It was probably the first time that a woman had dissected as a medical student." Years later two ladies dissected (privately) in this school under the direction of Dr. Keen. One of them, Fräulein Hirschfeldt, is now practicing dentistry with great success in Berlin.

Dr. D. Hayes Agnew (now Professor of Clinical Surgery in the University of Pennsylvania) assumed the care of the school in 1852, and lectured for ten years. It was during his term of service that he published his Dissector's Manual and notable anatomical papers. In 1862, Dr. Agnew put the anatomical department into the hands of Dr. James Garretson, who withdrew two years later upon his election to the chair of surgery in the Philadelphia Dental College. He has since published his large work on Oral Surgery, and is pleasantly familiar to many as "John Darby."

Following him came Drs. James P. Andrews and R. S. Sutton. In 1866, Dr. W. W. Keen took charge of the school and lectured most successfully until the present spring, upon descriptive and surgical anatomy, artistic anatomy (or anatomy in its relations to art) and upon operative surgery. During this period he had fifteen hundred students, "of whom five are now professors, and one has opened the first dissecting-room ever established in Japan." In the course of his connection with the school Dr. Keen won the highest of encomiums and warmest of friends, by his unusual aptness and impressiveness as a lecturer and by his genial and gentlemanly friendliness to his students.

He also has published valuable medical papers, has edited Heath's Anatomy and Flower's Diagrams of the Nerves. His pamphlet on the Anatomical Pathological, and Surgical Uses of Chloral he deems his most important contribution to practical anatomy. But the lectures delivered in the Philadelphia School of Anatomy were not confined to anatomy alone. From 1842 to 1862, a body of teachers called the "Summer Association," and kept alive by the election of new men to vacated places, lectured upon various medical subjects. With many of these teachers the school became a stepping-stone to brilliant and widely known fame. It was here that Dr. J. Forsyth Meigs first lectured upon Diseases of Children; his lectures becoming afterward embodied in his well-known book, which, in association with Prof. William Pepper, he has more recently republished in a revised and enlarged edition. He was followed by Dr. now Prof. D. H. Tucker; he by Dr. W. V. Keating, both lecturing on Obstetrics. Dr. now Prof. Robert Bridges lectured on Chemistry; Dr. now Prof. Francis Gurney Smith lectured on Physiology. Upon his appointment to a chair in the university, his place was taken by Dr. S. Weir Mitchell in 1852. Dr. Alfred Stillé (now Professor of Practice in the university) first lectured here on Practice. Dr. Ellerslie Wallace, now Professor of Obstetrics in Jefferson College, lectured on Anatomy. Dr. J. M. Da Costa gave courses on Physical Diagnosis from 1854 to 1863, and so successful was he that he was obliged to refuse many applicants from lack of room. Here were begun numerous observations which he embodied in his celebrated work on Diagnosis, and it was here that he did most of the actual laboratory and experimental work, the results of which he published in various papers on pulmonary and cardiac affections. He is now Professor of Practice in the Jefferson Medical College. Dr. John H. Brinton here founded his later reputation by his lectures on general surgical subjects, and thus won his place as lecturer in Jefferson College and Clinical Surgeon to the Philadelphia Hospital.

Beside his didactic lectures on Physiology, Dr. Weir Mitchell gave here the first purely experimental course on Physiology ever given in Philadelphia, and in these rooms "made nearly all of his important physiological experiments and discoveries," namely, his discovery of saccharine or diabetic cataract; his experiments in preparation for his well-known work on snakes and snake venom, a work which English observers in India have taken with the result of confirming and extending, but in no important particular of reversing Dr. Mitchell's conclusions. He afterward experimented largely with woorara. Later he investigated the chelonia, "discovering its respirations to be mammalian and not batrachian, and with Dr. George Morehouse discovered the remarkable chiasm in the inferior laryngeal nerves of this animal, the only chiasm known, save the optic." In 1867–68 he studied the effects of intense cold upon nerves and nerve-centres. In 1869 he made his extended experiments on the cerebellum, preserving a pigeon, from which he had removed this portion of the brain, for nine months. What his reputation now is I need not relate. He is known, well known, upon two continents. All the teachers of the "Summer Association" have won their way as professors, teachers, and practitioners, to positions of renown, some of them having a brilliant reputation to-day.

In 1849 Dr. Brown-Séquard delivered his first lecture in America to the students in this school. Scores of younger men, among them Professors H. C. Wood, Jr., Harrison Allen, James Tyson, and others, laid the foundation of their growing reputation by the results of their teaching and experimentation in the old Philadelphia School of Anatomy, which, now no more, will ever hold a warm place in the memories of all who ever taught or studied within its walls

UNGENANNT.

PHILADELPHIA, *May* 12, 1875.

ETHER AND CHLOROFORM.

MESSRS. EDITORS, — In a letter from my friend, Dr. Thomas Skinner, of Liverpool, published in the *British Medical Journal* for May 8th, I have been credited with a statement regarding the use of chloroform as an anæsthetic, which misrepresents my views and those of the medical profession in Boston to an extent which appears ridiculous. Dr. Skinner was my guest in August 1873. We had been fellow-assistants of the late Professor Simpson. He, in course of conversation, asked me in regard to the use of chloroform as an anæsthetic in Boston. My reply was that chloroform was used occasionally, but very rarely as compared with ether; that one could do as he chose in the matter, but if death resulted from the use of chloroform it would be a great misfortune for him in whose hands it happened, for the profession and the public would feel that he should have used ether, universally recognized among us as the safest anæsthetic. It would seem as if Dr. Skinner could not have been in earnest when he credited me with the extraordinary statement "that it was as much as my life and reputation were worth to attempt to administer chloroform in Boston, or anywhere in the United States," for he must have been aware that in the event of death from chloroform, the *life* of the physician who administered it would be as secure in New England as after a similar misfortune in Great Britain. A. D. SINCLAIR.

BOSTON, *May* 27, 1875.

WEEKLY BULLETIN OF PREVALENT DISEASES.

THE following is a bulletin of the diseases prevalent in Massachusetts during the week ending May 30, 1875, compiled under the authority of the State Board of Health from the returns of physicians representing all sections of the State: —

Bronchitis, pneumonia, and rheumatism continue to be the prevalent diseases of the State at large.

In the Connecticut Valley, intestinal disorders — diarrhœa and dysentery — have increased. In Springfield, scarlatina of a severe type is prevalent. One fatal case of small-pox has occurred in Easthampton. Shelburne has had cases of cerebro-spinal meningitis. "German measles" has appeared in Orange.

In Worcester County, diphtheria is unusually rife.

In the Northeastern section, measles continues, and "German measles" is frequently seen. Lawrence reports two fatal cases of cerebro-spinal meningitis; Woburn has had several cases of the same disease.

In the Metropolitan district, the recent weather changes have been marked by an increase in influenza, diphtheria, and diarrhœa. The latter may also point to the advent of the fresh fruit and vegetable season. Scarlatina and measles have also increased somewhat.

In the Southeastern counties there is a satisfactory absence of acute disease.

If comparison be made with the previous week, we note an increase of measles, diarrhœa, pneumonia, scarlatina, and typhoid fever.

Diphtheria has its maximum prevalence in Worcester County; measles in the Northeastern section; scarlatina in the Metropolitan district.

F. W. Draper, M. D., Registrar.

COMPARATIVE MORTALITY-RATES FOR THE WEEK ENDING MAY 22, 1875.

	Estimated Population.	Total Mortality for the Week.	Annual Death-rate per 1000 during Week.
New York	1,040,000	543	27
Philadelphia	775,000	335	22
Brooklyn	450,000	184	21
Boston	350,000	150	22
Providence	100,000	32	17
Worcester	50,000	22	23
Lowell	50,000	21	22
Cambridge	44,000	7	8
Fall River	34,200	14	21
Lawrence	33,000	7	11
Springfield	33,000	11	17
Lynn	28,000	8	15
Salem	26,000	14	28

Books and Pamphlets Received. — An Address on the Climatology of Florida. By A. S. Baldwin, M. D., President of the Medical Association of Florida. 1875.

Via Medica. An Address by S. M. Bemiss, M. D. (From the New Orleans Medical and Surgical Journal.)

Medical Charts of Temperature, Pulse, Respiration, and Regions. (From the Case and Record Company, Cincinnati.)

Boston Society for Medical Observation. — A regular meeting of this society will be held on Monday evening next, at eight o'clock, at the hall in Temple Place. Dr. Waterman will report a case of Empyema.